

REMARKS

In the Office Action, the Examiner rejected claims 27, 29, 30, 33, 49, and 50 under 35 U.S.C. § 102(b) citing United States Patent No. 4,365,401 (Ogren) and rejected claims 34 and 35 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ogren in view of German reference DE 41 09 407. Applicant respectfully traverses.

Applicant cannot find any clear indication as to what the relation between the effective piston areas of the holding down piston on the one side and the riveting piston on the other side is in Ogren. The Examiner only refers to the figures of Ogren, however, the relation is not evident from the figures, rather the opposite is true. The effective area is to calculate according to the formula:

$$A = \pi/4 (d_a^2 - d_i^2)$$

concerning the holding down piston; and according to the formula:

$$A = \pi/4 \times d_i^2$$

as far as the riveting piston is concerned. Applicant respectfully submits that "d_i" is not only the inner diameter of the holding down piston but also the relevant (only) diameter of the riveting position.

If one does calculate with the formulas with the mentioned data, the result is that the effective area of the holding down piston is 408.2 mm² whereas the effective area of the riveting piston is 346.2 mm². Or, without dimensions, the effective area of the holding down piston is about 18% higher than the effective area of the riveting piston.

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Therefore, Applicant is still of the opinion that the subject matter of claim 27 of the present invention is not only new but also patentable in view of the state of the art.

In addition, Applicant finds no description in the cited references which discloses the subject matter of claim 29 of the present invention.

With regard to the Examiner's rejection of claim 49, Applicant respectfully submits that claim 49 is not anticipated by Ogren. Due to the fact that according to the embodiment of the reference, the effective areas are opposite to what is claimed and described in the present invention, the holding down force is increased in dependence on the force N but to a **higher** extent.

Claim 50 describes in the way of a method claim the subject matter of claim 29. Since the piston spring is stronger than the spring of the holding down piston, irrespective of the fact, that the effective piston areas are in the opposite sense different, first the holding down piston will move downwards. Only once the riveting piston starts to move and is abutting against the workpiece the force of the riveting piston is increasing much faster than the force of the holding down piston (see Figure 19 of the present application and respective description).

In view of the above remarks, Applicant respectfully submits that the claims of the present invention are allowable over the prior art of record, and respectfully requests that the application be passed to issuance.


Should the present claims not be deemed adequate to effectively define the patentable subject matter, the Examiner is respectfully urged to call the undersigned attorney of record to discuss the claims in an effort to reach an agreement toward allowance of the present application.

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Respectfully submitted,

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By:


Richard A. Giangiori, Reg. No. 24,284
James R. Foley, Reg. No. 39,979
Attorneys for Applicant
TREXLER, BUSHNELL, GIANGIORGI,
BLACKSTONE & MARR, LTD.
105 W. Adams Street, 36th Floor
Chicago, Illinois 60603
(312) 704-1890

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